# HIGH-MU TRIODE POWER PENTODE

50BM8 is a miniature type triode-pentode designed for use as an AF amplifier by triode section and AF power amplifier by pentode section in radio receivers.

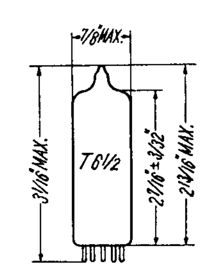
**BASE** E9-1 Small Button Noval 9-Pin

**MOUNTING POSITION**—Any

**HEATER**

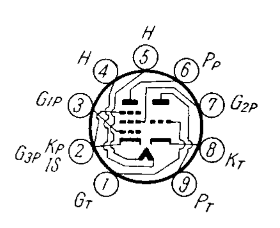
Voltage .............................. 50 (V)

Current ..............................0.1 (A)




**DIRECT INTERELECTRODE CAPACITANCES**

| (Without Shield) | Triode Unit | Pentode Unit | |
|---|---|---|---|
| Grid No. 1 to plate | 4.2 | 0.3 max. | (pF) |
| Input | 2.7 | 9.3 | (pF) |
| Output | 4.3 | 8.0 | (pF) |



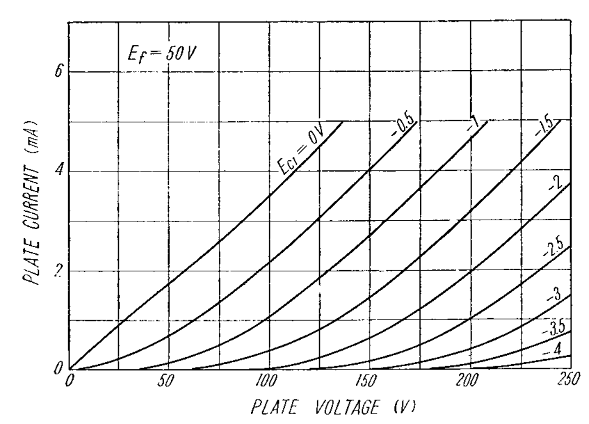

| MAXIMUM RATINGS (Design Center Values) | Triode Unit | Pentode Unit | |
|---|---|---|---|
| Plate Voltage | 250 | 250 | (V) |
| Grid No. 2 Voltage | 250 | 250 | (V) |
| Plate Dissipation | 1 | 7 | (W) |
| Grid No. 2 Dissipation | — | 1.8 | (W) |
| Total Cathode Current | 15 | 50 | (mA) |
| Peak Heater—Cathode Voltage | | | |
| Heater negative with respect to cathode | | 200 | (V) |
| Heater positive with respect to cathode | | 200△ | (V) |
| Grid No. 1 Circuit Resistance | | | |
| with Fixed Bias | 1 | 1 | (MΩ) |
| with Cathode Bias | 3 | 2 | (MΩ) |
| with Grid Bias | 22 | — | (MΩ) |

△ The D.C. component must not exceed 100 volts.

| TYPICAL OPERATION | Triode Unit | Pentode Unit | |
|---|---|---|---|
| Plate Voltage | 100 | 100 | (V) |
| Grid No. 2 Voltage | — | 100 | (V) |
| Grid No. 1 Voltage | 0 | −6 | (V) |
| Grid No. 1 Input Voltage (RMS) | — | 3.8 | (V) |
| Plate Current | 3.5 | 26 | (mA) |
| Grid No. 1 Current | — | 5.0 | (mA) |
| Transconductance | 2,500 | 6,800 | (μ℧) |
| Plate Resistance (Approx.) | — | 15 | (kΩ) |
| Amplification Factor | 70 | — | |
| Load Resistance | — | 3.9 | (kΩ) |
| Max.-Signal Power Output | — | 1.05 | (W) |
| Total Harmonic Distortion | — | 10 | (%) |

## AVERAGE PLATE CHARACTERISTICS

(Triode Unit)




## AVERAGE PLATE CHARACTERISTICS

(Pentode Unit)

